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PHOTOGRAPHIC INTERPRETATION REPORT



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# TACHIU ELECTRONIC INTERCEPT FACILITY CHINA

NPIC/R-130/68 JANUARY 1969

> GROUP 1: EXCLUDED FROM AUTOMATIC DOWNGRADING AND DECLASSIFICATION

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INSTAILATION OR ACTIVITY	NAME 25X1D	25X1D		25X1A	COUNTRY				
Tachiu Electro	nic Intercept Fa	acility	25X1A	23/1/	CH				
UTM COORDINATES NA	dinates geographic coordinates 25-25-N 119-37-		CATEGORY BE NUMBER None	COMIREX NO.	NIETB NO.	25X1A			
MAP REFERENCE ACIC. US Air (SECRET) LATEST IMAGERY USED	Target Chart	200, Sheet	0499-16HL, 2d ed,	Feb 64, Scale	e 1:200,000				
See Below			None						
requirement			NPIC PROJECT						
NSA/SOC/R12	8-68		250239BK						

# **ABSTRACT**

The Tachiu Electronic Intercept Facility consists of an operations area containing one VHF rhombic antenna, two Yagi antennas, eight discone antennas, twelve mattress arrays, seven solid parabolic dish antennas, six mesh parabolic dish antennas, one cut parabolic antenna, and two unidentified vertical arrays, as well as 16 control/support buildings. A support area is located at the base of the hill south-southwest of the operations area. The

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## INTRODUCTION

The Tachiu Electronic Intercept Facility, situated on a headland at 25-25 N 119-37- 25X1D E (Figure 1), consists of an operations area atop a 1,368-foot-high coastal hill and a support area located at the base of the hill to the south-southwest.

This report, based on photography of provides a detailed analysis, 25X1D within photo interpretation limits, of the equipment/capabilities of the facility.

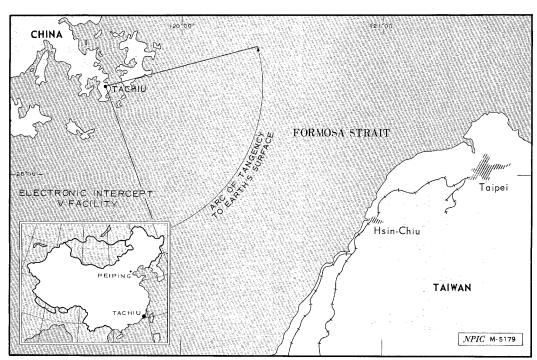


FIGURE 1. LOCATION MAP.

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photography which was of poor The facility was first observed on interpretability and no antennas were visible. Subsequent coverage in reveal evidence of electronics equipment. Antennas were first observed at the facility on lowat which time the facility contained eight parabolic level photography of mesh antennas, four solid parabolic antennas, five double rhombic antennas, and two VHF double rhombic antennas under construction.

## BASIC DESCRIPTION

The facility (Figure 2) presently contains a total of 39 identifiable antennas and 23 masts of undetermined function. By antenna type, there are one VHF rhombic antenna, two Yagi antennas, eight discone antennas, 12 mattress arrays, seven solid parabolic dish antennas, six parabolic dish antennas, one cut parabolic antenna, and two unidentified vertical arrays. Antenna dimensions and discernible distinctive features are summarized in Table 1. Azimuths cannot be determined from the existing low-level photography.

The one rhombic antenna remaining in the antenna field is cut for VHF frequencies, indicated by its dimensions (Table 1). Terminal connections and feed lines of this rhombic antenna cannot be distinguished on the latest available photography. The antenna was not present on previous photography of sufficient interpretability to determine feed detail; therefore, the operational status of the antenna is unknown. No transformer box can be identified. A counterpoise (ground screen) is not present. The height of the array above ground level could not be determined due to the sloping terrain and varying pole heights.

The two Yagi arrays, located on building tops, cannot be measured because of lack of photography of sufficient interpretability. Feed detail cannot be distinguished.

The eight solid discone antennas appear to be identical; however, no mensuration could be accomplished from the photography. The cones and disks of the antennas appear to be made of sheet metal rather than of the more common multiple wire spines.

The 12 (possibly 13) mattress arrays appear to be of various types of construction, with the primary observable difference being in the arrangement, direction, and spacing of the supporting members.

Of the 12 mattress arrays, ten are emplaced on fixed, probably non-rotating mounts, while two are dismounted and are either being constructed or dismantled. The absence of the unoccupied mounts indicates that they are probably under construction. Feed connections and individual elements cannot be observed.

One of the seven solid parabolic dish antennas is mounted on a possibly steerable mount while the remaining six are mounted at fixed azimuths. Feed elements on six of the antennas could not be observed. The one visible feed (Antenna 41, Figure 4 and Table 1) appears as a bulbous projection in front of the dish. It appears to be mounted in the center of the antenna; however, the method of attachment could not be determined.

Of the six mesh parabolic dish antennas, two are dismounted while the remaining four are mounted at fixed azimuths. One of the dismounted antennas (Antenna 22, Figure 4 and Table 1) is lying on its face in front of a fixed-azimuth mount. No feed is present. The position of the antenna indicates that it is either under construction, undergoing modification, or being removed; available coverage does not permit a determination of which of these is the case. The second dismounted antenna (Antenna 16, Figure 4 and Table 1) has no mount in its vicinity and it status is undetermined. Feed element detail and mensuration could not be accomplished. All of the open mesh antennas are encased in square supporting frames, except for Antenna 24 (Figure 2 and 3) which is self-supporting. No discernible difference exists in the construction details between the antennas with supporting frames and the one without a supporting frame.

Antenna 1 (Figure 2 and Table 1) is a cut parabola with truncated ends positioned on a steerable mount. Although the physical construction of the antenna screen is identical to that of BIG BAR/BAR LOCK antennas, its length is \_\_\_meters shorter. No feed is visible on 25X1D

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the antenna.

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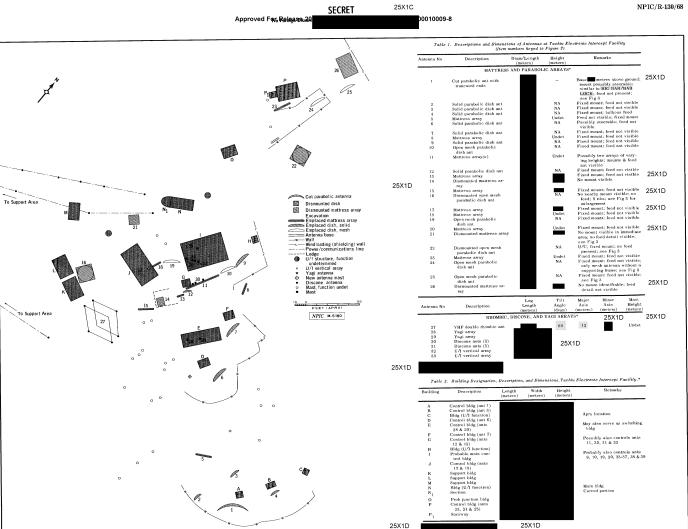


FIGURE 2. TACHIU ELECTRONIC INTERCEPT FACILITY, OPERATIONS AREA.

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photography, subsequent to that utilized for the antenna analysis, is not of sufficient ground resolution to permit detailed analysis; however, it reveals the presence of an additional cut parabolic antenna within the facility. The new antenna is located in front of building E (Figure 2). Antenna 6, a solid parabolic dish formerly emplaced in front of building E, appears to have been removed. The new antenna is smaller than Antenna 1 but appears similar in configuration. Accurate mensuration can not be accomplished on the new antenna. It is approximately 6 to 7 meters in length. No other changes are visible at the facility.

There are 16 buildings (Figure 3 and Table 2) and two unidentified structures within the operations area. The unidentified structures are circular (with an approximate 2-meter diameter) or semicircular with one square corner.

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The relatively small amount of spoil visible at the dumping ground indicates that the excavation is relatively small. The most recent photography indicates that the excavation activity is continuing.

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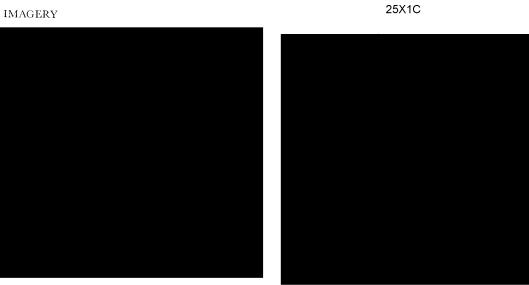
The operations area is physically connected to the support area at the hill base to the south-southwest by motorable trail and three power/communications lines. Photography of revealed that the support areas contained numerous shops, storage buildings, and barracks. Coverage on more recent photography has been inadequate to provide a detailed analysis of this area. The support area is served by a natural-surface, probable all-weather road.

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There is no evidence of microwave or any other radio transmission capability within the operations area. Examination of photography did not reveal microwave equipment within the support area. More recent photography cannot be utilized for microwave identification due to poor interpretability and inadequate ground resolution. No evidence of a communications link (radio or land line) from the support area is visible on available photography.

### REFERENCES

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MAPS OR CHARTS

ACIC. US Air Target Chart 200, Sheet 0499-16IIL, 2d ed, Feb 64, scale 1:200,000 (SECRET)